

REMARKS

The Examiner's final Office Action dated March 14, 2003 has been received and its contents carefully noted. Applicants respectfully submit that this response is timely filed (with a Petition for Extension of Time for One Month) and is fully responsive to the Office Action. By the above amendments, claims 32, 38, 44 and 50 are amended, and claims 56-59 are canceled. Support for the amendments can be found at least at Figures 1, 3D, 4C, 8A and at page 18, lines 20-23 and page 28, lines 13-15. Accordingly, claims 1-14, 31 and 32-55 remain pending with claims 1-14 and 31 being withdrawn as being directed to a non-elected specie which, upon finding generic claims 32-59 allowable, would be subject to consideration. Claims 32-55 are believed to be in condition for allowance for at least the reasons set forth below.

Initially, the Applicants respectfully repeat the request, made in the Amendment of December 6, 2002, that the Examiner review the PTO-892 form sent with the July 31st Office Action to determine if US Patent 6,247,887 (Springston et al) cited thereon should have been US Patent 6,274,887, since US Patent 6,247,887 is issued to Friend et al and is drawn to electroluminescent devices. If the US Patent 6,274,887 was supposed to be cited, it is respectfully requested that the patent be cited and a copy provided to the Applicants with the next Office Action.

With regard to the Examiner's rejections of:

A. Claims 32-36, 38-41, 44-48 and 50-54, under 35 U.S.C. 102(b), as being anticipated by the teachings of Hodate et al ('940),

B. Claims 37, 43, 49 and 55, under 35 U.S.C. 103(a), as being obvious in view of the combined teachings of Hodate et al ('940) and Shanks et al ('688), and

C. Claims 32, 35-38, 41-44, 47-50 and 53-59, under the judicially created doctrine of obviousness-type double patenting, as being obvious in view of claims 1, 7, 8, 9, 15, 17, 19, 23, 25, 27, 37, 42, 44, 46, 57, 64 and 66, of U.S. Patent No. 6,274,887

each of these rejections is respectfully traversed.

As noted previously, with regard to the C. - obviousness-type double patenting rejection above, the Applicants will file a proper Terminal Disclaimer upon an indication that all other remaining rejections have been overcome, and therefore, it is respectfully requested that the final disposition of the obviousness-type double patenting rejection be held in abeyance until such time.

With regard to the rejections A. (under §102(b)) and B. (under §103(a)) above, the Applicants repeat the arguments set forth in the Amendment of December 6, 2002 in which it is urged that the Hodate et al reference neither discloses each and every feature of the claimed invention, nor suggests modifying the teachings of Hodate to achieve the semiconductor device structure presently claimed. To those arguments, the Applicants add that the presently claimed invention, of independent claims 32, 38, 44 and 50, requires that the semiconductor device have a pair of (conductive) side walls which "only overlap the pair of first impurity regions" as disclosed in the instant specification, see page 28, lines 13-15, and Figure 3D.

A review of the Hodate et al and Shanks et al reference reveals that neither reference teaches or suggests this feature. Note, particularly that Hodate et al teach that, when forming three adjacent impurity regions adjacent the channel region, the sidewalls composed of an insulating resist mask (Figure 4B, 4C, elements 19a, 19b) are disposed not only on the first impurity region but also over the second impurity region. Further, the patentees teach that in embodiments where only two impurity regions are formed adjacent the channel region (see Figures 1C(prior art), 3B, 3C, 6C, 8A, 8C, 9B, 9C, 10A, 10C, 11A, 11c, 12A, 12C, elements 5, 14, 36, 47, 51, 56, 59, 65, 68, 74, 85, 89) that the resist film used to form the second impurity region is transitory and is replaced by an insulating sidewall which overlaps both the first and second impurity regions. Since Hodate et al does not (explicitly or implicitly) teach each and every feature of the claimed invention, the rejection of claims 32-36, 38-41, 44-48 and 50-54, under §102(b), is improper and must be withdrawn.

Turning to the Shanks et al reference, which has been cited to allegedly show that it would have been obvious to employ the claimed semiconductor device in various electronic components, it must be pointed out that Shanks et al (Figure 3; column 4, line 15 to column 5, line 30) does not teach a semiconductor device having the multiple impurity regions and the (conductive) sidewall masking arrangement overlapping only the first impurity region, as presently claimed, and therefore, Shanks et al do not remedy the deficiencies of Hodate et al discussed above. Consequently, the rejection of claims 37, 43, 49 and 55, under §103(a), as being obvious in view of the combined teachings of Hodate et al ('940) and Shanks et al ('688) has also been set forth in error and must be withdrawn.


Having responded to all rejections set forth in the outstanding Office Action, it is submitted that claims 32-55 are in condition for allowance. An early and favorable Notice of Allowance is respectfully solicited. In the event that the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, the Examiner is courteously requested to contact Applicants' undersigned representative.

Lastly, it is noted that a separate Extension of Time Petition (one month) accompanies this response along with a check in payment of the requisite extension of time fee.

However, should that petition become separated from this Amendment, then this Amendment should be construed as containing such a petition. Likewise, any overage or shortage in the required payment should be applied to Deposit Account No. 19-2380 (740756-2063).

Respectfully submitted,

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